

Iron oxide for LFP battery

Fine Particle and High-Purity Iron Oxide for LFP Battery



OVERVIEW

TODA KOGYO's GY-L series are iron oxide (goethite: α -FeOOH) developed as a raw material for cathode material of olivine type lithium-iron phosphate (LFP: LiFePO_4) secondary batteries. The purity and particle properties are optimized by our wet synthesis technologies.

FEATURES

High purity

This goethite is high-purity iron oxide with impurities controlled by raw material refining and purification technology.

Customization of powder properties

Since it is possible to control the particle shape, size, dispersibility, etc., we provides the products optimized for various applications.

CHARACTERISTICS

【Typical Properties】

| | | GY-L300 | GY-L900 |
|-----------------------------|---------------------|-----------------|-----------------|
| Material | | α -FeOOH | α -FeOOH |
| Shape | | Needle | Needle |
| Color | | Yellow | Yellow |
| Purity(α -FeOOH) | [wt%] | 95< | 95< |
| Specific surface area (BET) | [m ² /g] | 30 | 90 |
| Bulk density | [g/ml] | 0.25 | 0.65 |



【TEM image of the particle】

【Optional fabrication】

- ✓ Hematite (α -Fe₂O₃) and magnetite (Fe₃O₄) are also available.
- ✓ Customization available, including for the particle size (nano to micron meter) and the shape.
- ✓ Various surface treatments depending on your demands.
- ✓ Composite particle with organic/inorganic material.

APPLICATIONS

- Raw material for cathode material of olivine type lithium-iron phosphate secondary batteries.
- Raw material for cathode material for all-solid-state lithium secondary batteries.

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